Minnesota Plant Press

The Minnesota Native Plant Society Newsletter

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Minnesota Native Plant Society

A non-profit organization dedicated to the conservation and appreciation of Minnesota's native plants and plant communities through education and public awareness.

Wild Ginseng in Minnesota – An Update

The root of American ginseng (*Panax quinquefolia*) is known in fable as a cure-all for whatever ails you. The cure-all part is likely fable, but the plant itself is most certainly real. It is a wild plant native to Minnesota, inhabiting the band of mesic hardwood forests that extends from Houston County on the Iowa border, northwestward to Detroit Lakes. This is the lush maple-basswood forest found between the coniferous forests to the east and the prairies to the west. At the time of settlement, American ginseng was perhaps the most common and abundant herbaceous plant on the forest floor. It is now one of the rarest. The reason is not habitat loss, pesticides or disease, but the nearly unregulated harvest of the root for commercial profit.

Where goes our Minnesota ginseng once it is dug out of the ground? Essentially all American ginseng is exported to Asia. The Asiatic ginseng (*Panax ginseng*) has so mercilessly been exploited it is now essentially extinct in the wild. The American version has long been seen as an excellent substitute, but the demand is nearly inexhaustible. Wholesale prices for American ginseng are several hundred dollars per pound.

American ginseng, as discussed here, refers to the wild indigenous plant. American ginseng is also cultivated under artificial shade in large-scale farms, but the price for cultivated ginseng is a small fraction of the price of wild ginseng. The Minnesota Department of Natural Resources (DNR) has authority only over wild ginseng, and that is what the Board of the Minnesota Native Plant Society is concerned with.

American ginseng is a very long-lived plant. Not reaching maturity in the wild until age 7 or 8, and (if left unmolested) living to an age of 70 years or more. Taking, or "digging" ginseng, as it is called, is not like picking berries or mushrooms. When ginseng is dug, the whole root is taken, and the plant is killed. The term "harvesting" is often used in reference to wild ginseng, but it is a mere euphemism.

Harvesting ginseng (or "taking" in the lingo of endangered species) in Minnesota is minimally regulated. The existing regulations set a season from September 1 to December 31 and require diggers to limit their harvest to mature plants with berries, and are told to plant the berries where the parent plant was dug. Unfortunately, there is very little enforcement of the regulations, and no one knows how often they are being followed. Also, there is no limit to the amount of ginseng a person can "harvest" and no license is needed to do it, and there is no requirement to report where or how much a person has taken.

Wild American ginseng is listed in CITES (The Convention on International Trade in Endangered Species of Wild Fauna and Flora – enacted in 1973), just as tigers and rhinos are. Since the United States is a signatory to CITES, the federal government requires each state where ginseng is taken to certify that the taking of wild ginseng in their state does not threaten the survival of the plant in their state. Minnesota has never been able to meet these

Monthly Meetings

All meetings will be vitual until further notice.

Meetings are held the first Thursday of the month, October-December & February-June. Meetings run from 7:00-9:00 p.m. Meeting announcements with the Zoom link will be sent monthly to members.

Please check the website for more program information.

The monthly meetings serve as a great opportunity to expose a friend to our organization. This also presents a chance to meet up with other folks that have a strong passion for Minnesota's native flora, all from the comfort of your own home.

Society Leadership

Board members' names are followed with the year their term expires in parentheses.

President: Scott Milburn (2021)

Vice President: Welby Smith (2022)

Secretary: Jennifer Kamm (2023)

Treasurer/Membership: Ken Arndt

Board Member: John Arthur (2023)

Board Member: Simba Blood (2022)

Board Member: Steve Eggers (2021)

Board Member: Larissa Mottl (2021)

Board Member: David Remucal (2023)

Board Member: Annie Weeks (2022)

Conservation Chair: David Remucal

Program Chair: Annie Weeks and Scott Milburn

Symposium Chair: Annie Weeks

Social Coordinator: Shirley Mah Kooyman

Field Trip Coordinator: Ken Arndt and Larissa Mottl

Webmaster: Katy Chayka

Website: www.mnnps.org

Technical/Membership Inquiries:

contact@mnnps.org

requirements. In fact, the known ginseng harvest in Minnesota has gone down every year for almost 20 years, even while the demand and price of ginseng has gone up. This means that even though there is more incentive to dig ginseng in Minnesota, there is less and less brought to market every year. The only logical conclusion is that there is less and less wild ginseng in the woods of Minnesota every year. The DNR is unable to provide population statistics, and has provided no money to monitor the annual taking.

The DNR website says: "The future of wild ginseng in Minnesota is in the hands of the harvesters". This self-policing obviously has not been working well. We would like the future of wild ginseng in Minnesota to be put in the hands of professional biologists and resource managers who have made a commitment to preserving the native biodiversity of Minnesota. This is all within the authority of the DNR to do, it only requires the political will to do it.

The Board of the Minnesota Native Plant Society wants to strongly encourage the DNR to list American ginseng as a threatened species under the state Endangered and Threatened species law (Minnesota statute Section 84.0895). It is currently listed as special concern – a status that gives it no protection. If ever a plant species fit the description of threatened it is American ginseng in Minnesota. Such a listing would prohibit the commercial taking of American ginseng in Minnesota. Furthermore, the Board would recommend that the DNR not remove threatened status until a scientifically valid monitoring program for wild American ginseng in Minnesota has shown a stable or increasing population, and that a sustainable harvest can be instituted, monitored and enforced without threatening the existence of the species in Minnesota.

It is assumed that certain dealers in wild ginseng will oppose such a listing, but the Board believes that the facts of the case, and public opinion would strongly support a listing as threatened, and the Board intends to pursue this goal.

More information about American ginseng can be found on the DNR's online Rare Species Guide. The DNR additionally has an entire dedicated page specific to American ginseng under Harvesting regulations.

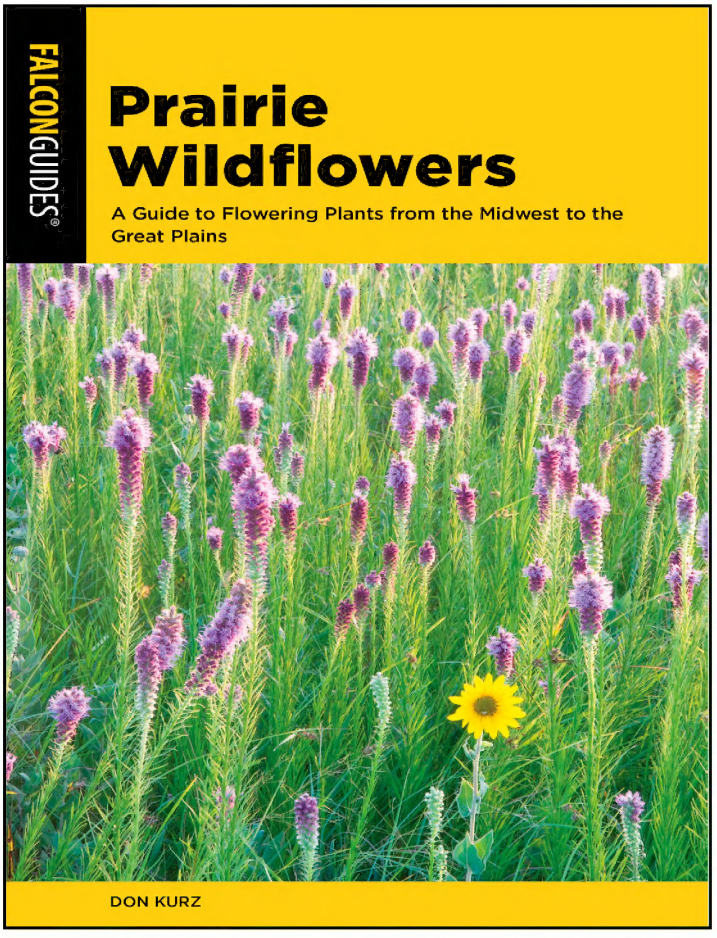
State regulation pertaining to American ginseng can be found under Minnesota Rules, Chapter 6282.

Book Review

Larissa Mottl - MNNPS Board Member

Prairie Wildflowers: A Guide to Flowering Plants from the Midwest to the Great Plains (2019)

Author: Don Kurz



This field guide covers many of the prairie forbs that one may encounter in prairie plant communities in Minnesota. The guide is similar to the *Tallgrass Prairie Wildflowers: A Falcon Field Guide* (1995) by Doug Ladd and Frank Oberle, which may be a very familiar and well-worn field guide on the book shelves of prairie and native plant enthusiasts in the Midwest. Prairie Wildflowers is organized by flower color. It does not include any prairie grasses, sedges, and rushes, but it does highlight some of the more commonly encountered showy weeds of the prairie region in a separate section.

Prairie Wildflowers provides nice photographs, brief descriptions that cover many of the key characteristics needed for identifying each species, bloom season, habitat and range descriptions, and comments for over 350 species. The comment sections mention species that are look-a-likes, and provide interesting notes about about the cultural uses of each plant.

I'm always looking for quick ways to find information in field guides. So along those lines, I think it would have been handy to have the notes about similar species connected with the plant descriptions, or otherwise placed under a separate heading for finding at-a-glance, rather than tucked in with the cultural use notes.

The book generally covers prairie forbs within the "prairie region," which is described and mapped in the introduction section, along with descriptions and photos of broad prairie types such as wet prairie, mesic prairie, and dry prairie. Although the habitat notes are informative, I sometimes found it difficult to interpret the range descriptions in relation to the geographic region covered by the book. Some range descriptions mention specific states, while others provide general areas within the prairie region, such as "the western part." Guide users who are exploring prairies in Minnesota may have some difficulty figuring out if a species they are reading about in the guide would naturally occur there.

Sixteen weed species are included in a separate section of the guide. Although this section is not meant to provide any management or control recommendations, it may have been a missed opportunity to recommend that people can help prevent the spread of these species as they visit natural areas. Also, having been "burned" by wild parsnip with a long-lasting scar to remind me, I think guide users should have been alerted to the plant's phototoxicity. The plant has furocoumarins which, when on your skin and exposed to UV light, react with oxygen and create blisters and hyperpigmentation. You are best off avoiding any skin contact with this plant!

Overall, this guide is a good resource for not only learning more about the diversity and beauty of prairie wildflowers in native prairies in Minnesota and beyond, but for also recognizing these species as they are being increasingly incorporated into our home and urban landscapes, corporate campuses, roadside plantings, and restored agricultural land.

Membership:

The MNNPS membership starts January 1st. Dues may be paid online or mailed to:

P.O. Box 16237
St. Paul, MN 55116

The Minnesota Native Plant Society is a Volunteer Organization first established in 1982.

The Harbingers of Spring

Trillium nivale - **Snow Trillium**

Erythronium americanum **subsp.** *americanum* - **Yellow Trout Lily**

Ranunculus rhomboideus - **Early Buttercup**

Claytonia virginica - **Virginia Spring Beauty**

Caltha palustris - **Common Marsh Marigold**

Enemion biternatum - **False Rue Anemone**

Uvularia grandiflora - **Large-flowered Bellwort**

Besseya bullii - **Kitten-tails**

Dicentra cucullaria - **Dutchman's Breeches**

Viola pedata - **Beardless Birdfoot Violet**

Androsace occidentalis - **Western Androsace**

Geum triflorum - **Prairie Smoke**

Hesperostipa curtiseta – A Grass Species New to the Flora of Minnesota

Rhett Johnson

In early July, 2019, *Hesperostipa curtiseta* ((Hitchc.) Barkworth) was documented on a public property in Polk County, Minnesota, under the management of the Minnesota Department of Natural Resources (DNR). The collected voucher, verified by Dr. Mary Barkworth is the first documented occurrence of this species in our state. *H. curtiseta* in known by several common names including shortbristle needle and thread, small porcupine grass, and western porcupine grass. The species is native to a number of states and provinces west and northwest of Minnesota. The Polk County population appears to be a naturally occurring native population and is a significant range extension for the species.

The Polk County population was growing in Northern Dry Sand-Gravel Prairie (UPn12b) on the crest of a Glacial Lake Agassiz beach ridge in excessively drained gravely soil. *H. curtiseta* was growing in association with species typical of the community, including fringed sage (*Artemisia frigida*), dotted blazing star (*Liatris punctata*), pale purple coneflower (*Echinacea angustifolia*), yellow prairie coneflower (*Ratibida columnifera*), western ragweed (*Ambrosia psilostachya*), purple prairie clover (*Dalea purpurea*), fringed puccoon (*Lithospermum incisum*), and leadplant (*Amorpha canescens*).

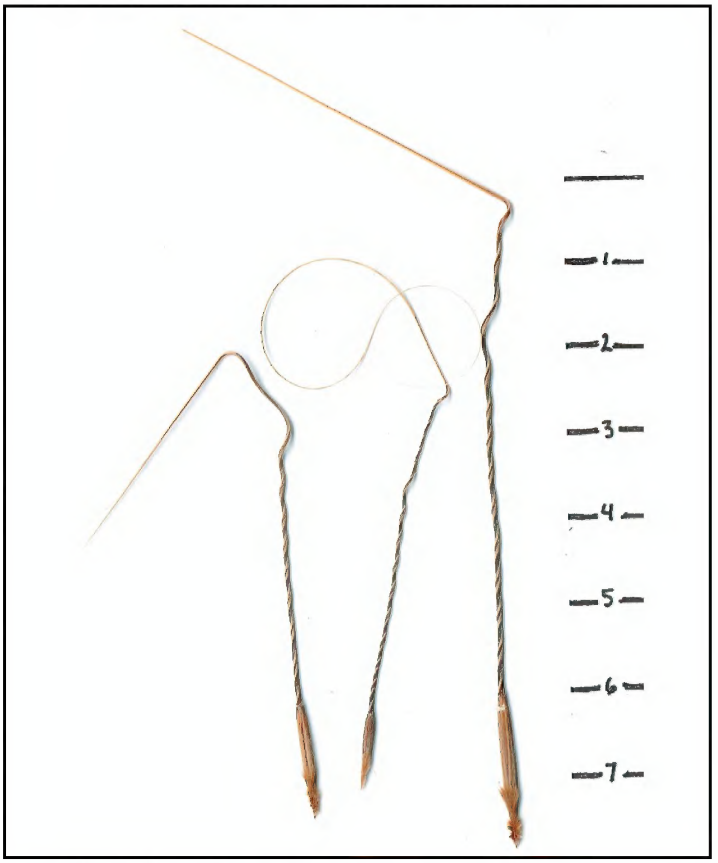
H. curtiseta is a cool season bunch grass with stiff leaves that have ridges along the upper surfaces; clumps are dense and look much like other needlegrasses that grow in Minnesota. Without fruits or glumes, it is very difficult to distinguish from the other needlegrasses. Because of its similarity to the other needlegrasses, it is possible that *H. curtiseta* is more widespread in northwestern Minnesota and has been overlooked. The optimal time to look for *H. curtiseta* is when it is in flower and fruit, which appears to be mid-June to mid-July.

H. curtiseta is very similar to the more common porcupine grass (*Hesperostipa spartea* (Trin.) Barkworth), having needles that are rather stiff and mostly have two kinks. The most easily observed difference in the two species is the length of the fruits and glumes. In *H. curtiseta* the lemma body is 8.5-14 mm long with an awn 5-9 (10.5) cm and glumes are 15-30 mm.

In *H. spartea* the lemma body is 15-25 mm long with an awn 9-19(20) cm and glumes are 22-45 mm. Vegetatively, *H. curtiseta* averages a little smaller in all aspects compared to *H. spartea*, though they overlap and are very similar. *H. spartea* usually has fine, short hairs in vertical lines on the nodes (requiring magnification to see) while *H. curtiseta* lacks these hairs (or rarely may have evenly distributed hairs on the nodes). *H. spartea* also has very fine, short hairs along the sheath margins (also requiring magnification to see) which *H. curtiseta* lacks. (Technical characteristics are from The Flora of North America North of Mexico and The Flora of the Great Plains.)

The dry prairie where *H. curtiseta* was found is home to many rare plants, and we are fortunate that this particular area is protected. Unfortunately, much of the quality dry beach ridge prairie in northwest Minnesota has been lost to gravel mining. We owe thanks to the many conservationists who worked hard to protect what remains, and those who still work to manage the land.

Rhett Johnson is a Prairie Specialist with the DNR and primarily works with private prairie landowners and the Native Prairie Bank program. Rhett is working on *A Field Guide to Minnesota Grasses*; you can contact him for an electronic copy of a draft of the guide.



The fruits of all three *Hesperostipa* spp. *H. curiseta* on the left, *H. comata* in the middle, and *H. spartea* on the right.

Symplocarpus foetidus (L.) - Skunk Cabbage

Scott A. Milburn - MNNPS Board Member

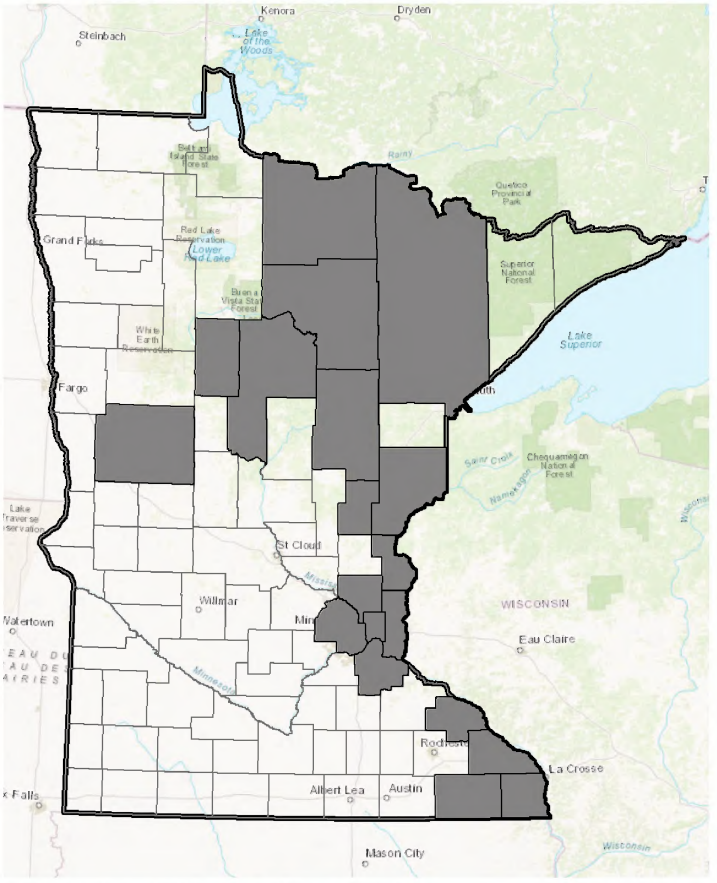
This species is one of only four native species of the Arum family (Araceae) present in the state of Minnesota, prior to recent taxonomic reshuffling. The Araceae now includes members of what had been the Duckweed family (Lemnaceae). The genus name *Symplocarpus* is derived from Greek (not Latin), meaning "connected fruit." The specific epithet refers to the putrid odor of the flower that serves to attract pollinators. The leaves and the smell of the plant lend to a perfect common name. Skunk cabbage is a textbook example of why we opt for scientific names over colloquial ones. The mentioning of skunk cabbage out in the Pacific Northwest would have folks thinking of *Lysichiton americanus* instead.

Our skunk cabbage is the first plant in Minnesota to flower in the spring, often emerging while snow is still on the ground. The inflorescence, referred to as a spadix, is enclosed in a reddish-maroon bract, which is termed a "spathe." The bright color of the spathe adds to the charisma of this species. The root structure here is very unusual with finger-like roots, with slight grooves that serve in anchoring the plant within the substrate. Eventually the leaves of this plant emerge later in the spring, often hiding any remnants of a fruiting structure. The associated series of photos presented here were collected on a trip with our Vice President, Welby Smith last April next to the Mississippi River in Dakota County.

The inflorescence of Skunk Cabbage.

The root system of Skunk Cabbage.

Skunk Cabbage in full view.



Statewide Distribution Map of Skunk Cabbage

MNNPS Vice President, Welby Smith, collecting a voucher specimen.

President's Column

Scott A. Milburn - MNNPS President and Board Member

Hopefully this newsletter finds everyone well and in good spirits despite the ongoing pandemic. This situation has obviously upended how we normally operate from how we shop, work, and meet. The Plant Society has not been able to avoid the impact, but we have continued to move forward and enter the world of video conferencing for our monthly meetings. This seems to be quite successful thus far. The pandemic is by no means an event to take lightly, but there will be many positive takeaways due to the forced paradigm shift. For our Society, that means considering how we meet. The intent is to initiate in-person meetings when it is absolutely safe to do so. When that time comes, we will still want to engage with our membership that lives outside the metro region. We have been discussing the option to attend our monthly in-person meetings virtually. This will require an investment in resources, but we have the funds to allow for this. Even better, we can potentially have supplemental meetings throughout the entire year, in addition to our normal meeting schedule. This will allow us to continue inviting guests from all around the country to present as we are already doing this now. In fact, our upcoming meeting in May will include a talk from University of California-Davis Emeritus Professor, James A. Doyle. Dr. Doyle, a paleobotanist, will present a talk titled "Reconstructing the first angiosperms and their initial diversification." Our new way of life allows for such a great opportunity and we hope to expand on all of the endless possibilities in the future.

As with the in-person monthly meetings, we are carefully watching how things play out in regards to the annual symposium. We are not inclined to host a virtual event based on the difficultly to pull this off successfully. Rather, we are hoping to hold the symposium late next fall or next spring. We will keep the membership apprised of the details in the upcoming months. As with all of the other uncertainty, in-person field trips will be avoided, but we will be basing any decision on suggestions from public health officials. The pandemic, however, should not prohibit each and every one of us from getting outdoors.

In other news, we have some new additions to our board. One such new member is Jennifer Kamm, who originally hails from southwest Minnesota and currently resides here in the Twin Cities. She is a consultant with Stantec and is focused on natural resources. Another addition is our friend from the University of Minnesota Landscape Arboretum, David Remucal. David has been gracious to help arrange symposium logistics for us at the Arboretum for the last few years. He will be taking over for Tom Casey as Conservation Chair. On that note, we would like to thank Tom Casey for all of his hard work and effort during his tenure. One of the items that Tom advocated for was our involvement regarding a roadside bill that looked to weaken protection for state-listed plants. We are continuing our involvement with reestablishing protective measures through proposed legislation. We will keep the membership informed as things develop during this year's legislative session. Until we see each other in person, I wish you all well and looking forward to spring!